

Dynamically Reparameterized LiTht Fields

Aaron Isaksen
MIT LCS Computer Graphics Group
aisaksen@Traphics.lcs.mit.edu
<http://Traphics.lcs.mit.edu>

given (u_F, v_F) will intersect at (u_F, v_F) , regardless of (\hat{s}, \hat{t}) . That is, these rays are ‘looking’ at the point (u_F, v_F) on the focal surface F . If there is an object at that location then the ray database has captured, the rays will agree on the color of that surface (up to view-dependent variations). In the left side of Figure 5, $r_1, r_2, r_{\text{lo}} \text{ and } r_{\text{agree}}$.

Dyna

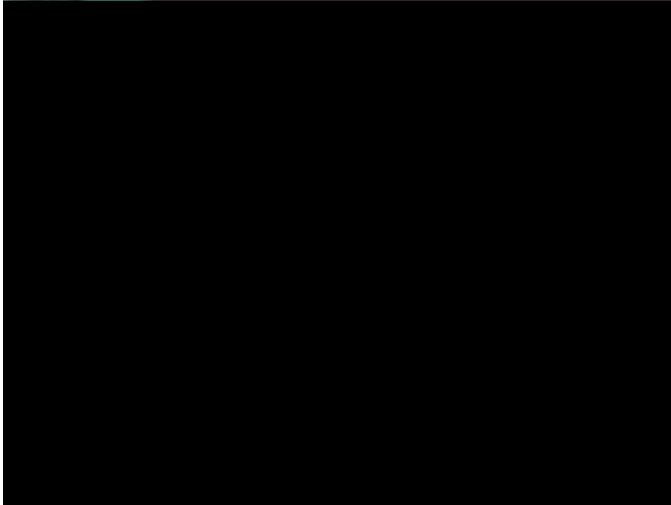
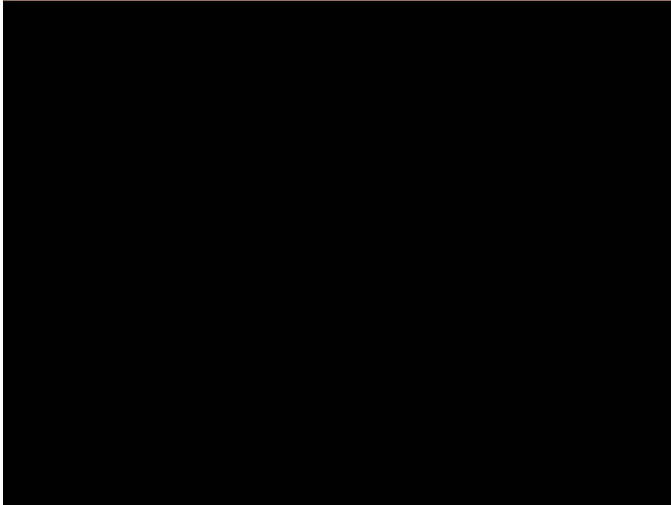


Figure 11: Using two focal surfaces f_1 and f_2 to make the front and back objects in focus while those in the middle are blurry. Since a ray r will intersect each focal

prerecorded scores for each focal surface intersection and compare them.

To find the best focal surface for a ray, an algorithm must first obtain intersections and scores for each focal surface. Since this is linear in the number of focal surfaces, we would like to keep the number of focal surfaces small.



i u

Figure i

- [Cook84] Cook, R.L., T. Porter, and L. Carpenter, "*Distributed Ray Tracing*," **Computer Graphics** (SIGGRAPH'84 Conference Proceedings), July 1984, pp. 137-145.
- [Gortler96] Gortler, S.J., R. Grzeszczuk, R. Szeliski, and M.F. Cohen, "*The Lumigraph*,"